

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2005/000285

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7): G01N 27/20, G01N 17/00, B02C 23/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(7): G01N, B02C (using keywords)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Canadian Patent Database, Delphion, Esp@cenet, IEEE, US Patent Database (USPTO), WEST.
Keywords: cavity, circuit, conductive, erosion, filler, lifter, loop, mill, optic, sensor, substrate, trace, wear.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4655077 (PURVIS ET AL.) 7 April 1987 col. 1, line 65 - col. 2, line 36 col. 3, lines 24-30, 53-58 col. 4, lines 8-16 col. 4, line 56 - col. 5, line 2 claim 1 abstract	1, 5, 9, 11, 14, 21, 25, 26, 29, 31, 44, 55, 56, 80
A	US 4884434 (MITSUBISHI CABLE INDUSTRIES LTD.) 5 December 1989 col. 2, lines 16-65 col. 3, lines 7-17 claims 1, 2 abstract figs. 1, 3, 4	1, 5, 7, 11, 21, 25, 30, 31, 47, 55, 56, 72, 80

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search

19 May 2005 (19-05-2005)

Date of mailing of the international search report

22 June 2005 (22-06-2005)

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001(819)953-2476

Authorized officer

Tung Nguyen (819) 956-3859

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2005/000285

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5758970 (AUBERT) 2 June 1998 col. 1, line 30 - col. 2, line 25 col. 3, lines 11-20, 29-34, 51-56 claim 1 abstract	1, 11, 25, 26, 31, 37, 44, 56
A	US 6510729 B2 (MAGOTTEAUX INTERNATIONAL) 28 January 2003 col. 1, lines 7-37 col. 1, line 58 - col. 2, line 11 col. 2, line 44 - col. 3, line 11 claim 1	1, 11, 21, 25-28, 31, 32, 34, 44, 56, 58

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/CA2005/000285

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US4655077	07-04-1987	DE3636321 A1	28-04-1988
		US4655077 A	07-04-1987
US4884434	05-12-1989	JP4032565Y Y2	05-08-1992
		US4884434 A	05-12-1989
US5758970	02-06-1998	DE69515956D D1	04-05-2000
		DE69515956T T2	20-07-2000
		EP0707208 A1	17-04-1996
		FR2725789 A1	19-04-1996
		US5758970 A	02-06-1998
		WO2004074826 A1	02-09-2004
US6510729	28-01-2003	AU775407 B2	29-07-2004
		AU8549901 A	09-05-2002
		BE1013826 A3	03-09-2002
		BR0105008 A	25-06-2002
		CA2361591 A1	06-05-2002
		US6510729 B2	28-01-2003
		ZA200109048 A	03-05-2002